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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,212	01/20/2004	Luca Zucchelli	08801.0082-02000	6425
22852	7590	10/18/2007		
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413			EXAMINER TOOMER, CEPHIA D	
			ART UNIT	PAPER NUMBER
			1797	
			MAIL DATE	DELIVERY MODE
			10/18/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/759,212

Applicant(s)

ZUCCHELLI ET AL.

Examiner

Cephia D. Toomer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 43-82 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 43-51, 53, 55-58, 61-64, 66-73 and 77-81 is/are rejected.
- 7) ☒ Claim(s) 52, 54, 59, 60, 65, 74-76 and 82 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This Office action is in response to the amendment filed August 6, 2007 in which claims 43, 47, 49, 61 and 71 were amended.

Upon further review of the reference, the examiner maintains the rejection of claims 43-47, 49-51, 53, 55-58, 61-64, 66-69, 71-73 and 77-81 and includes claims 48 and 70 in the rejection. See below.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 43-51, 53, 55-58, 61-64, 66-73 and 77-81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andrews (US 5,643,342).

Andrews teaches a fuel pellet and method of making the fuel pellet comprising 0 to about 80% by weight of cellulosic material, from 20% to about 50% by weight of densified thermoplastic material and from 0 to about 50% by weight of coal (see abstract). The cellulosic material, densified thermoplastic material and coal are ground to a particle size from about 80 mesh to about 200 mesh and is blended into a mixture wherein the contents are evenly distributed throughout (see abstract). The cellulosic material is urban waste such as paper mill sludge, wood chips, paper fibers and other paper products (see col. 4, lines 46-61). The fuel pellet breaks into discrete particles as

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it enters the furnace and burns. Therefore, smaller particles within the pellet are capable of burning quicker due to their size and density (see col. 5, lines 16-24). The moisture of the fuel pellet should be at least about 5% by weight and no greater than about 10% by weight (See col. 5, lines 33-36). This teaching suggests that the moisture content of the thermoplastic is less than or equal to 10%. Andrews teaches the limitations of the claims other than the differences that are discussed below.

In the first aspect, Andrews differs from the claims in that he does not specifically teach the density of the fuel. However, no unobviousness is seen in this difference because Andrews teaches that the density of the fuel may be optimized to produce a quicker burning fuel.

In the second aspect, Andrews fails to teach the combustion rate and temperature. However, no unobviousness is seen in this difference because Andrews teaches that the fuel pellet breaks into discrete particles as it enters the furnace and burns. Therefore, smaller particles within the pellet are capable of burning quicker due to their size and density. These teachings suggest that the fuel pellet may be prepared wherein the particle sizes are optimized such that the particles combust in a given amount of time. With respect to the temperature, it would have been obvious to one of ordinary skill in the art to select a temperature not less than 1500 C because Andrews teaches that the specification of the furnaces may vary but that the furnace be configured such that rapid burning of the fuel occurs.

With respect to the claimed amount of fossil fuel, 60-95 % by wt, it is the examiner's position that Andrew teaching of from 0 to about 50% by weight of coal is

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close enough to the claimed 60% by wt that one skilled in the art would expect the fuel pellets to have the same or similar properties. *Titanium Metals Corp v. Banner*, 227 USPQ 773 (Fed Cir 1985). It is well settled that the term "about" is flexible and extends the range of the parameters.

3. Claims 52, 54, 59, 60, 65, 70, 74-76 and 82 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


The prior art fails to teach the claimed amount of the fossil fuel, the fuel in emulsion or suspension form and the addition of the elastomeric polymer material, the fossil fuel and non-fossil fuel are fed to the burner separately.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cephia D. Toomer whose telephone number is 571-272-1126. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Cepha D. Toomer  
Primary Examiner  
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